

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of Sandal *et al.*

Serial No.: 10/051,383

Group Art Unit: 1638

Filed: January 22, 2002

Examiner: Georgia L. HELMER

For: TRANSGENIC TEA THROUGH BIOLISTIC USING LEAF EXPLANTS

DECLARATION UNDER 37 CFR §1.132

Commissioner for Patents
Washington, D.C. 20231

Sir:

I, Amita Bhattacharya, declare that

1. I am a citizen of India, and I am a Scientist, employed at Institute of Himalayan Bioresource Technology, Palampur, Himachal Pradesh, India. I received my Ph.D. at Bose Institute, Kolkata, India.

2. I am a co-inventor of U.S. application serial No. 10/051,383, "*Transgenic Tea through Biolistic Using Leaf Explants*," filed on January 22, 2002.

3. I have read and understood the examiner's rejections as outlined in the Office Action mailed on June 14, 2004.

4. I have read and understood the examiner's rejection under 35 USC § 112, paragraph 1 as to Figure 1 of the application, namely, that "Figure 1, panels a-c, shows leaf explants having blue spots and speckles, while observation of Figure 1, panels d-r, shows leaf explants (15 panels in all), some of which (4 or 5) show blue spots or sectors. In the absence of other information, this Gus gene expression evidence for transformed tea tissue by the claimed method is indecisive or negative, since the level of gus expression in the controls is equivalent to that in the transformants." See the Office Action at page 4.

5. In response to this rejection, I have included Exhibit A, which inverts the panels in Figure 1 such that they correspond to the description in the "Brief description of the accompanying drawing." The configuration in Exhibit A depicts the originally intended orientation for Figure 1, but unfortunately Figure 1 was inadvertently reversed during the printing process. Therefore, figures a, b, and c in Exhibit A correspond to Figures 1 r, q, and p, respectively, and figures p, q, and r in Exhibit A correspond to Figures 1 c, b, and a, respectively, and so on. Exhibit A, a-c, shows tea leaves that are devoid of speckles, while Exhibit A, d-r, shows transformed tea leaves containing speckles.

6. I have read and understood the examiner's rejection of examples 2, 3, and 4, under 35 USC § 112, paragraph 1, namely that the examples, "give no information of the result of these testings. Furthermore, the sole piece of evidence, Figure 1, is limited to leaf explants. Even Figure 1 fails to demonstrated [sic] that whole transgenic tea plants were regenerated from the allegedly transformed explants, as claimed." See the Office Action at page 4.

7. In response to this rejection, I have included Exhibit B. Exhibit B (a)-(f) shows transgenic tea leaves and plants produced by the method disclosed in the USSN 10/051,383 application. That is, the tea cells were transformed using plasmid pRT99GUS, which contains the GUS gene. I confirm that the tea explants transformed with this plasmid were subsequently grown into transgenic tea plants. Hence, Exhibit B(a) shows an untransformed tea leaf tissue; Exhibit B(b) shows transformed tissue expressing GUS; Exhibit B(c) and (d) show regenerated transgenic saplings grown in Petri dishes; and Exhibit B(e) and (f) show regenerated saplings that we have grown into transgenic plants and which are being maintained in a greenhouse. I believe these exhibits address the examiner's concerns, as they show not only transformed tea leaves, but also entire transformed tea plants being grown and maintained in our possession.

I hereby declare that all the statements made herein of my known knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements are made with the knowledge that willful false statements are so made punishable by fine or imprisonment, or both, under Section 101 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

02-09-2005

Date

NAME:

Job Title:

Amita Bhattacharya
AMITA BHATTACHARYA

Scientist

Co-inventor